REMARKS

1. **Priority document**

The German priority document for this application, DE 101 42 893.6, was submitted in parent application 09/997,222 on April 30, 2002. A copy of the date stamped post card receipt and of the German priority document submitted are attached.

If the priority document is not found in the file, applicant will supply a new priority document before issue.

2. **Drawings**

Applicant submits herewith replacement drawings for the application.

Figure 1 now contains a reference number 10a.

Figures 2B and B have been labeled PRIOR ART.

In Figure 4, reference number 14c has been changed to 14a to conform to the specification.

3. **Specification**

Paragraph 0089 has been amended as suggested by the Examiner, changing the reference to "upper wall 14c" to "upper wall 16c".

4. **Claim Objections**

The Examiner has objected to the language "upper an lower" in claim 57. This language was not found in claim 57, but in claim 62, wherein the language was corrected.

The Examiner has objected to syntax of claims 50. 51, and 60, which has been corrected as suggested. Occurrences of similar language in other claims have been similarly amended.

5. **Claims Indicated Allowable**

The Examiner has indicated claim 48 to be allowable if drafted in independent form, and the present amendment does this. Formal allowance of claim 48 is respectfully requested.

6. **Claim Rejections**

Claims 46, 47 and 49 to 65 have been rejected as unpatentable under 35 U.S.C. § 102 or 103 over U.S. Patent No. 5,236,486 to Blankenbecler et al.

Reconsideration of this rejection is respectfully requested.

a. Claim 46 and its dependent claims

Claim 46 has been amended to incorporate the language of dependent claim 47, and clearly distinguishes over Blankenbecler et al.

Claim 46 now recites a method for producing an optical member of quartz glass that comprises providing a blank which includes a contour portion for the contour of the optical member to be produced and an overdimension portion. The overdimension portion has a surface which is defined by a lower side, an upper side opposite the lower side and spaced apart

therefrom, and an outer edge extending around a center axis. The method further comprises subjecting the blank to a thermal treatment, and subsequently cooling the blank. In the cooling, measures are provided which, during cooling, keep heat conduction in an area adjacent the outer edge lower than in an area adjacent the center axis. The method further comprises removing the overdimension portion so as to expose the optical member. The measures comprise use of a preform as the blank wherein the overdimension portion includes a thickened portion which extends from the outer edge towards the center axis, the thickened portion varying in thickness so that the distance between the lower side and the upper side in an area adjacent the outer edge is greater than the distance between the lower side and the upper side in an area of the center axis.

This claimed method provides for production of a blank of improved homogeneity. See, e.g., specification, page 5, ¶ 1. The cited Blankenbecler patent teaches a method that is different from the claimed method, and fails to suggest the annealing with an overdimension as claimed.

Blankenbecler teaches a process for making a lens with gradients of index of refraction. Blankenbecler, col. 3, lines 3 to 6. The process is illustrated in Figs. 2a to 2d, and described at col. 6, line 28 et seq. Essentially, a blank 10 with layers of differing indices of refraction is provided (Fig. 2a) and heated to a temperature at or near the softening point on an appropriate mold surface so that it slumps (Fig. 2b). The glass may be annealed after slumping. See col. 8, lines 58 et seq. The outer part of the glass is then ground away to uncover the final lens blank 10' therein, which is effectively the shape of the finished lens.

Another embodiment of the process is shown in Figs. 4a and 4b. The layered glass 10 is softened and molded to a semicircular shape 10 (Fig. 4b), which is ground away to the enclosed lens blank region 20. Col. 8, lines 1 to 4.

Contrary to the Examiner's understanding of the reference, the various shapes of Fig. 3a to f are not glass blanks that are annealed, but rather are actually final forms of lenses obtained from the glass blank 10 after it has been slumped, annealed, and ground down. See col. 3, lines 47 to 50 ("FIGS. 3a-f are cross-sectional views of various combinations of plano/convex/concave lenses fabricated in accordance with the invention" [emphasis added]). These are not lenses with an overdimension (as the Examiner has suggested in the diagram at page 5in the office action, but rather the final shape of the optical member, without any overdimension portion. The only blanks that Blankenbecler suggests annealing are the products of slumping, i.e., blank 10 of Figs. 2b or 4b, and these do not have an overdimension portion as required by claim 46.

Claim 46 as amended requires that during cooling of the blank, heat conduction in an area adjacent the outer edge is kept lower than in an area adjacent the center axis by measures that comprise use of a preform as the blank wherein the overdimension portion includes a thickened portion which extends from the outer edge towards the center axis, the thickened portion varying in thickness so that the distance between the lower side and the upper side in an area adjacent the outer edge is greater than the distance between the lower side and the upper side in an area of the center axis. The overdimension portion is then removed so as to expose the optical member.

Blankenbecler discloses no such measures and no overdimension portion. The lenses of Figs. 3a to 3f, despite their shapes, have no overdimension portion as required by the claim.

Blankenbecler fails to discuss annealing of a blank made up of a lens and an overdimension portion as recited in claim 46, and claim 46 therefore distinguishes over the Blankenbecler reference.

Claims 49 to 56 depend directly or indirectly from claim 46, and therefore distinguish therewith over the prior art.

Claim 57 has been amended to incorporate the language of its dependent claim 58, and now recites a method for producing an optical member of quartz glass that comprises providing a blank comprising a contour portion for the contour of the optical member to be produced and an overdimension portion surrounding the contour portion. The overdimension portion has a center axis, a lower portion, an upper portion opposite the lower portion and spaced apart therefrom, and an outer edge extending around the center axis. The blank is subjected to a thermal treatment and subsequently cooled. The overdimension portion is removed so as to expose the optical member. The overdimension portion is configured such that, during cooling, heat conduction from the contour portion adjacent said outer edge is limited more than adjacent the center axis, and at least one of the upper and lower portions of the overdimension portion have different thicknesses adjacent the center axis and adjacent the outer edge, the thickness thereof adjacent the center axis being less than the thickness adjacent the outer edge.

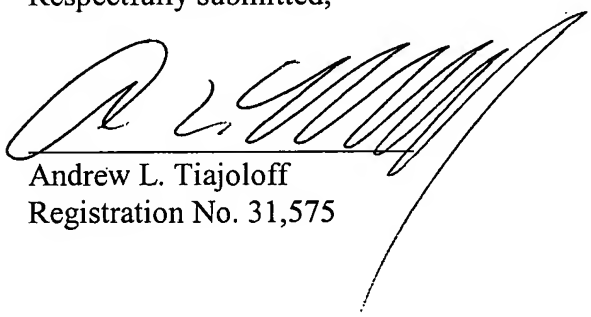
As discussed above, Blankenbecler does not show or suggest a blank with an overdimension portion that provides for the transmission of heat as claimed. Claim 57 as amended therefore distinguishes over the prior art, as well, and reconsideration of the rejection thereof is respectfully requested.

Claims 59 to 65 depend directly or indirectly from claim 57, and therefore distinguish therewith over the prior art.

All claims having been shown to distinguish over the prior art in structure, function, and result, formal allowance is respectfully requested.

Should any questions arise, the Patent Office is invited to telephone attorney for applicants at 212-490-3285.

Respectfully submitted,



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IN THE DRAWINGS:

Please substitute the attached sheets for Figures 1 to 5 in the application.